

This application is a DIV of 10/084,050 2/28/2002 PAT 6,713,845

TITLE OF THE INVENTION

Nitride-Based Semiconductor Element and Method of
Forming Nitride-Based Semiconductor

BACKGROUND OF THE INVENTION

5 Field of the Invention

The present invention relates to a nitride-based semiconductor element and a method of forming a nitride-based semiconductor, and more specifically, it relates to a nitride-based semiconductor element containing a
10 nitride-based semiconductor formed by epitaxial lateral overgrowth and a method of forming a nitride-based semiconductor.

Description of the Prior Art

A technique of growing a nitride-based semiconductor
15 on an underlayer is known in general. For example, a crystal of GaN, which is one of nitride-based semiconductors lattice-matching with only a small number of types of substrates, is grown on a substrate such as a sapphire substrate. In relation to this, generally known
20 is a technique of inserting a buffer layer grown at a low temperature between the substrate and a GaN layer for growing GaN in excellent crystallinity with a small number of crystal defects.

Even if the aforementioned low-temperature buffer
25 layer is employed, however, the density of reducible